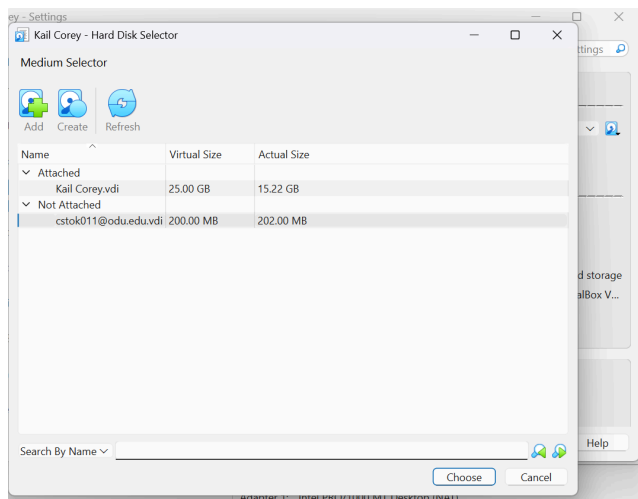


Assignment 7 - Storage Management

Part 1

```
corey@coreystokes: ~  
File Actions Edit View Help  
(corey@coreystokes)-[~]  
$ sudo ls /dev/sd*  
[sudo] password for corey:  
/dev/sda /dev/sda1 /dev/sda2 /dev/sda5  
(corey@coreystokes)-[~]  
$ sudo fdisk -l  
Disk /dev/sda: 25 GiB, 26843545600 bytes, 52428800 sectors  
Disk model: VBOX HARDDISK  
Units: sectors of 1 * 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disklabel type: dos  
Disk identifier: 0x6989f875  
  
Device Boot Start End Sectors Size Id Type  
/dev/sda1 * 2048 49641471 49639424 23.7G 83 Linux  
/dev/sda2 49643518 52426751 2783234 1.3G f W95 Ext'd (LBA)  
/dev/sda5 49643520 52426751 2783232 1.3G 82 Linux swap / Solaris  
(corey@coreystokes)-[~]  
$ sudo parted -l  
Model: ATA VBOX HARDDISK (scsi)  
Disk /dev/sda: 26.8GB  
Sector size (logical/physical): 512B/512B  
Partition Table: msdos  
Disk Flags:  
  
Number Start End Size Type File system Flags  
1 1049kB 25.4GB 25.4GB primary ext4 boot  
2 25.4GB 26.8GB 1425MB extended lba  
5 25.4GB 26.8GB 1425MB logical linux-swaps(v1) swap  
(corey@coreystokes)-[~]  
$
```

Part 2



```
File Machine View Input Devices Help
$ sudo ls /dev/sd*
[sudo] password for corey:
/dev/sda /dev/sda1 /dev/sda2 /dev/sda5 /dev/sdb
--(corey@coreystokes)-[~]
$ sudo fdisk -l
Disk /dev/sda: 25 GiB, 26843545600 bytes, 52428800 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x6989f875

Device Boot Start End Sectors Size Id Type
/dev/sda1 * 2048 49641471 49639424 23.7G 83 Linux
/dev/sda2 49643518 52426751 2783234 1.3G f W95 Ext'd (LBA)
/dev/sda5 49643520 52426751 2783232 1.3G 82 Linux swap / Solaris

Disk /dev/sdb: 200 MiB, 209715200 bytes, 409600 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
--(corey@coreystokes)-[~]
$ sudo parted
Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sda: 25.8GB
Sector size (logical/physical): 512B/512B
Partition Table: msdos
Disk Flags:

Number Start End Size Type File system Flags
1 1049KB 25.4GB 25.4GB primary ext4 boot
2 25.4GB 26.8GB 1425MB extended lba
5 25.4GB 26.8GB 1425MB logical linux-swapt(0) swap

Error: /dev/sdb: unrecognised disk label
Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sdb: 210MB
Sector size (logical/physical): 512B/512B
Partition Table: unknown
Disk Flags:
--(corey@coreystokes)-[~]
```

Part 3

```
(corey@coreystokes)-[~]
$ sudo mkfs.ext4 /dev/sda1
mkfs2fs 1.47.2 (1-Jan-2025)
/dev/sda1 is mounted; will not make a filesystem here!
--(corey@coreystokes)-[~]
$ sudo fdisk /dev/sda

Welcome to fdisk (util-linux 2.41).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

This disk is currently in use - repartitioning is probably a bad idea.
It's recommended to unmount all file systems, and swapoff all swap
partitions on this disk.

Command (m for help): p

Disk /dev/sda: 25 GiB, 26843545600 bytes, 52428800 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x6989f875

Device Boot Start End Sectors Size Id Type
/dev/sda1 * 2048 49641471 49639424 23.7G 83 Linux
/dev/sda2 49643518 52426751 2783234 1.3G f W95 Ext'd (LBA)
/dev/sda5 49643520 52426751 2783232 1.3G 82 Linux swap / Solaris

Command (m for help): n
Partition type
p primary (1 primary, 1 extended, 2 free)
l logical (numbered from 5)
Select (default p):

```

```
(corey@coreystokes)-[~]
$ sudo fdisk /dev/sdb

Welcome to fdisk (util-linux 2.41).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table.
Created a new DOS (MBR) disklabel with disk identifier 0x2566b945.

Command (m for help): n
Partition type
p primary (0 primary, 0 extended, 4 free)
e extended (container for logical partitions)
Select (default p): p
Partition number (1-4, default 1): 1
First sector (2048-409599, default 2048):
Last sector, +/-sectors or +/-size[K,M,G,T,P] (2048-409599, default 409599):

Created a new partition 1 of type 'Linux' and of size 199 MiB.

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.
--(corey@coreystokes)-[~]
$
```

```
(corey@coreystokes)-[~]
$ sudo fdisk -l
Disk /dev/sda: 25 GiB, 26843545600 bytes, 52428800 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x6989f875

Device     Boot   Start      End  Sectors  Size Id Type
/dev/sda1  *        2048 49641471 49639424 23.7G 83 Linux
/dev/sda2             49643518 52426751 2783234   1.3G  f W95 Ext'd (LBA)
/dev/sda3             52426752 52428799    2048    1M 83 Linux
/dev/sda5             49643520 52426751 2783232   1.3G 82 Linux swap / Solaris

Partition table entries are not in disk order.

Disk /dev/sdb: 200 MiB, 209715200 bytes, 409600 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x2546b945

Device     Boot   Start      End  Sectors  Size Id Type
/dev/sdb1        2048 409599    407552 199M 83 Linux

(corey@coreystokes)-[~]
$
```

Step 4

```
(corey@coreystokes)-[~]
$ sudo mkdir /cyse

(corey@coreystokes)-[~]
$ sudo mount /dev/sdb1 /cyse
mount: cyse: fsconfig() failed: /dev/sdb1: Can't lookup blockdev.
        dmesg(1) may have more information after failed mount system call.

(corey@coreystokes)-[~]
$ sudo mount /dev/sdb1 /cyse

(corey@coreystokes)-[~]
$
```

Step 5

```
(corey@coreystokes)-[~]
$ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            921M   0    921M   0% /dev
tmpfs           198M 1008K  197M   1% /run
/dev/sda1        24G   14G   8.0G  64% /
tmpfs           987M  4.0K  987M   1% /dev/shm
tmpfs           5.0M   0    5.0M   0% /run/lock
tmpfs           1.0M   0    1.0M   0% /run/credentials/systemd-journald.service
tmpfs           987M  8.0K  987M   1% /tmp
tmpfs           1.0M   0    1.0M   0% /run/credentials/getty@tty1.service
tmpfs           198M  116K  198M   1% /run/user/1000
/dev/sdb1       181M   63K  167M   1% /cyse

(corey@coreystokes)-[~]
$
```

```
File Actions Edit View Help
(corey@coreystokes)-[~]
$ cd /cyse
(corey@coreystokes)-[/cyse]
$ sudo echo "corey stokes" > CSTOKES011.txt
zsh: permission denied: CSTOKES011.txt
(corey@coreystokes)-[/cyse]
$ echo "corey stokes" > CSTOKES011.txt
zsh: permission denied: CSTOKES011.txt
(corey@coreystokes)-[/cyse]
$ cd ~
(corey@coreystokes)-[~]
$ echo "corey stokes" > CSTOKES011.txt /cyse
(corey@coreystokes)-[~]
$ sudo umount /cyse
[sudo] password for corey:
(corey@coreystokes)-[~]
$ ls /cyse
(corey@coreystokes)-[~]
$
```

The file won't show because it's on the mounted partition